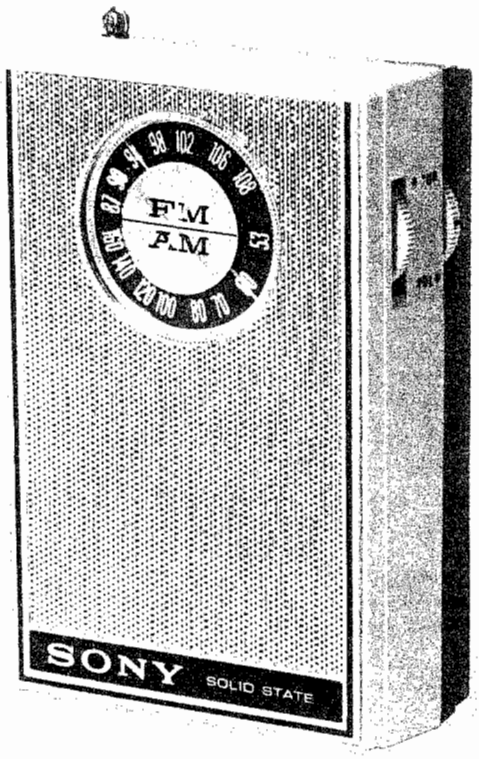
3F-66W



Specifications

Circuit :	8 Transistor Superheterodyne
Frequency Coverage :	FM 86.5 – 108 Mc (3.47 – 2.78 m)
	AM 530 – 1,605 Kc (556 – 187 m)
Antenna System :	FM Built-in Telescopic Antenna
	AM Built-in Ferrite Bar Antenna
Intermadiate Frequency :	FM 10.7 Mc
	AM 455 Kc
Maximum Sensitivity :	FM 4.5 μV
(at 10 mW output)	AM 56 μV/m
Selectivity :	21 dB at 10 Kc off resonance, at 1,400 Kc
Power Output :	150 mW (undistorted)
	250 mW (maximum)
Current Drain :	10.5 mA (AM), 14.0 mA (FM) at zero signal, 42 mA at 150 mW output
Speaker :	$2\frac{1}{4}$″(57 mm) PM dynamic Speaker, 8Ω
Power Source :	Eveready 216 (JIS 006 P) or Equivalent (9 Volts)
Dimensions :	$2\frac{7}{8}$″(W)×$4\frac{1}{2}$″(H)×$1\frac{3}{8}$″(D)
	(72×112×35 mm)
Weight :	10 oz. (270 gs) with Battery

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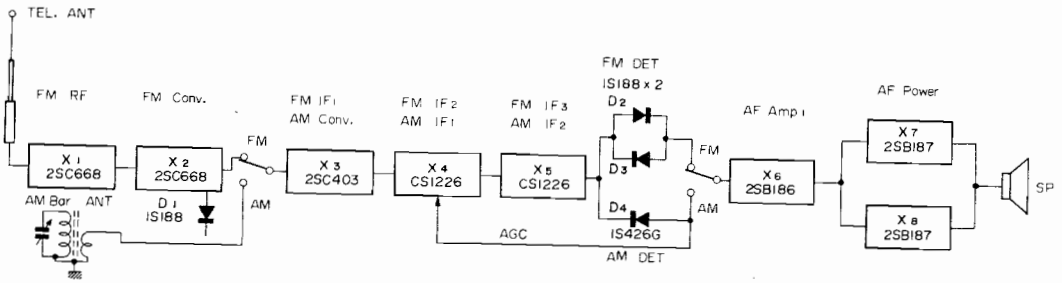
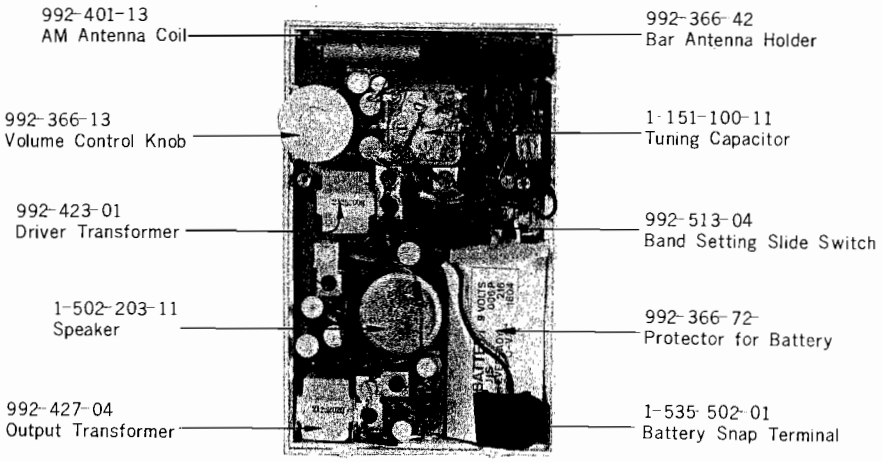
SERVICE MANUAL

3F-66W

Block Diagram



Interior View



Removal of Back Cover

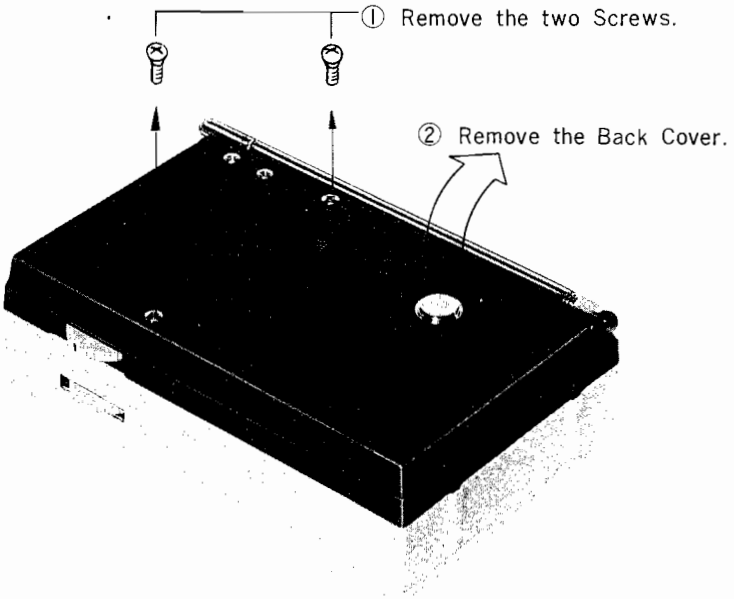


Fig. 1

Removal of Printed Circuit Board

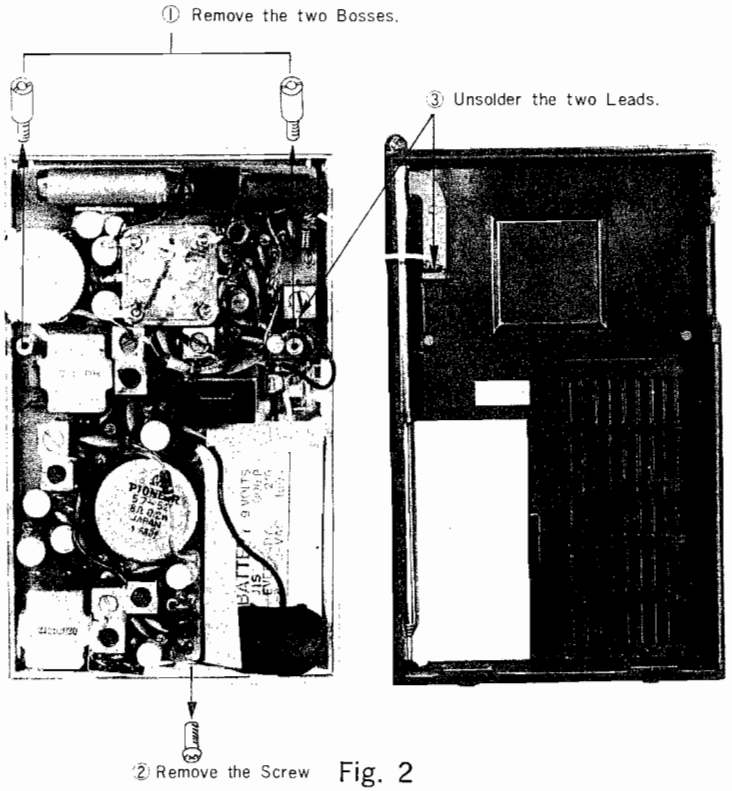


Fig. 2

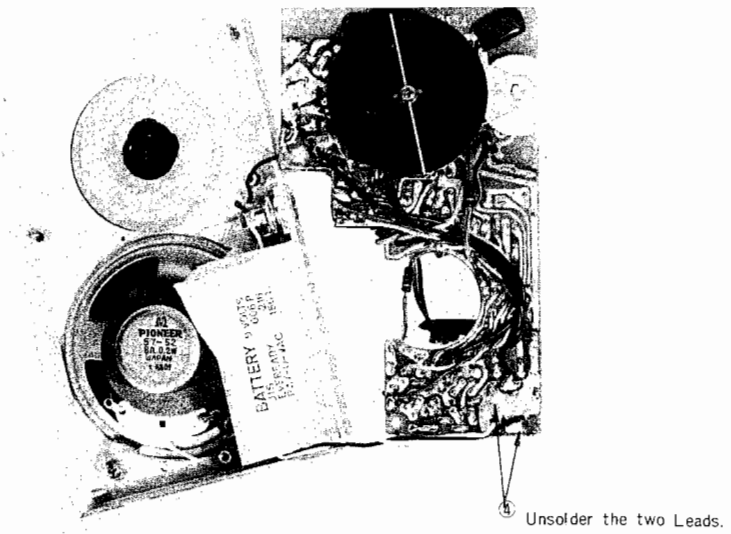
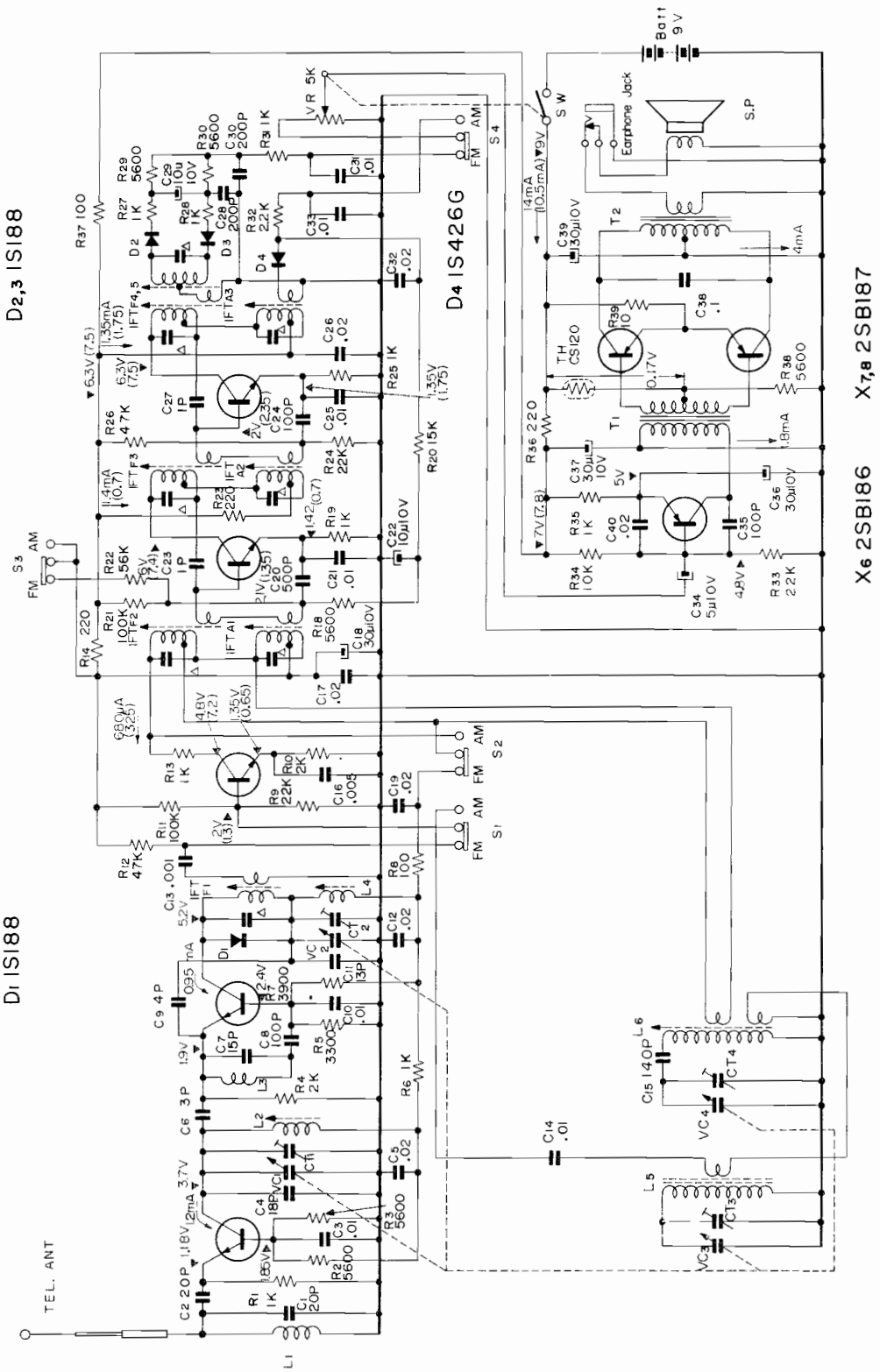


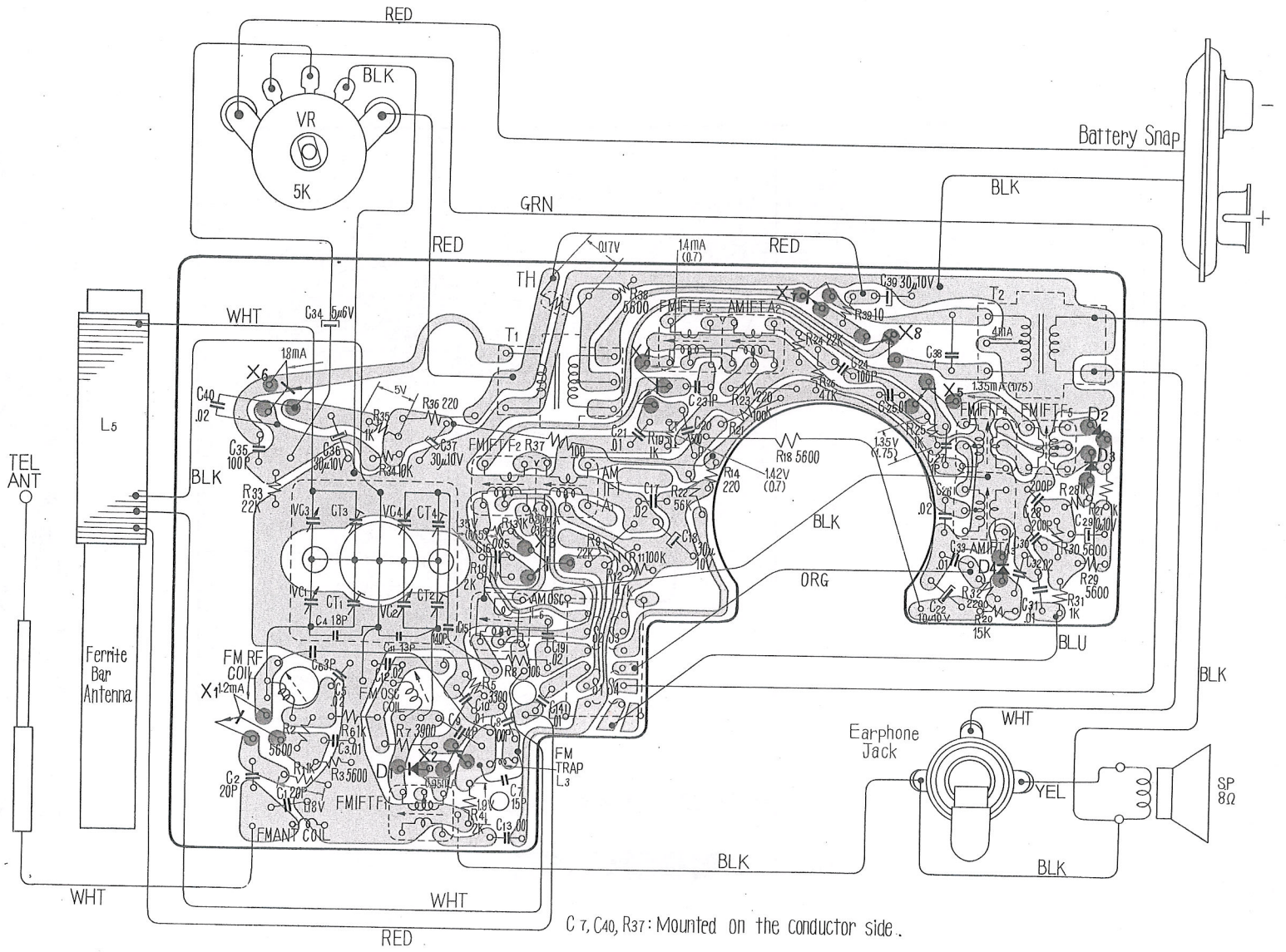
Fig. 3

Schematic Diagram



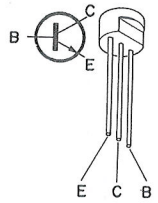
Mounting Diagram

— Conductor Side —

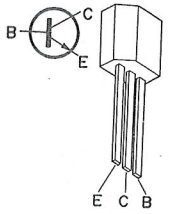


C 7, C40, R37 : Mounted on the conductor side.

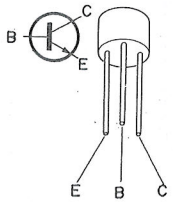
X1, X2 2SC668



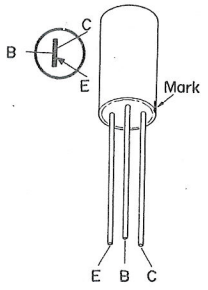
X3 2SC403



X4, X5 CS1226

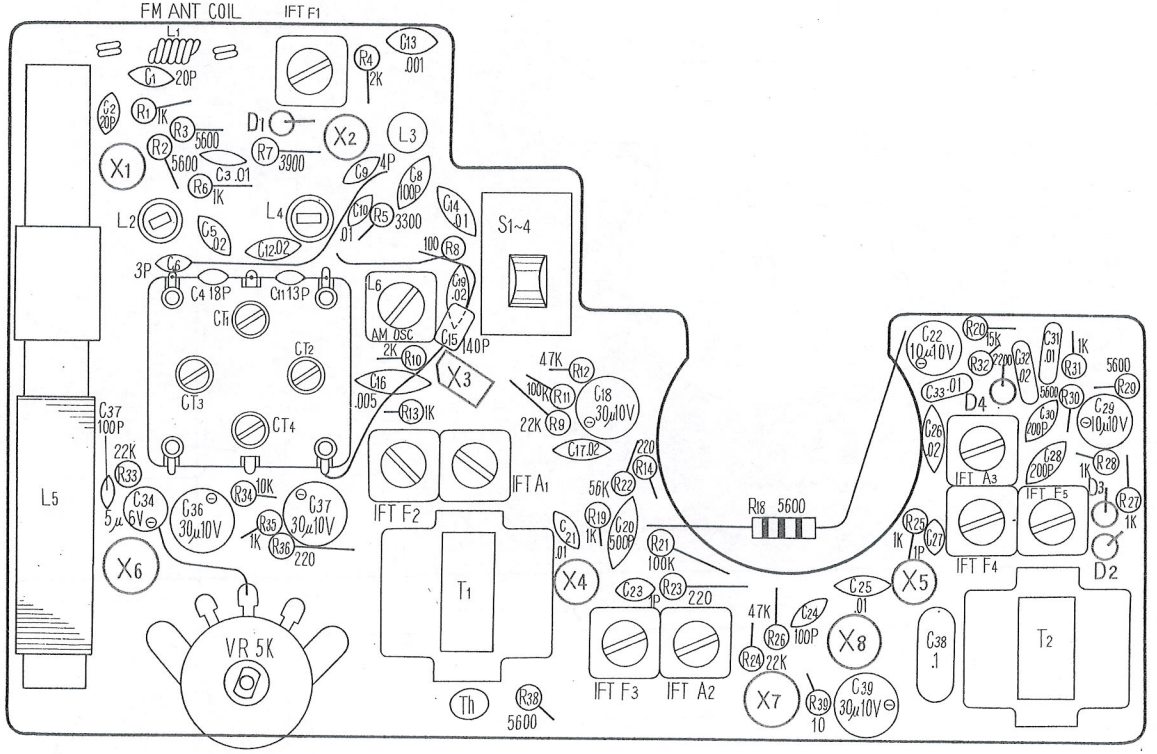


X6 2SB186
X7, X8 2SB187



Mounting Diagram

— Component Side —



SONY CORPORATION

Complete Spare Parts List for 3F-66W

May, 1968

Part No.	Description
A. Cabinet and Appearance Items	
992-366-01	Complete Cabinet
992-366-02	Front Cabinet and Back Cover
992-366-04	Battery Lid Ass'y
992-366-27	Dial Indicator
992-366-28	Punching Metal
992-366-26	Badge
992-366-34	Decoration Metal
992-366-11	Tuning Knob
992-366-13	Volume Control Knob
B. Mechanical Parts	
992-366-49	Dial Back Plate
992-366-50	Boss
992-366-48	Tuning Dial Drum
992-225-41	Speaker Retaining Metal
992-228-46	Speaker Packing
992-366-42	Bar Antenna Holder
992-366-72	Protector for Battery
992-366-47	Dial Shaft
992-366-74	Sheet, Power Switch
C. Electrical Parts	
1-401-228-11	FM Antenna Coil
1-425-191-11	FM-RF Coil
1-407-101-11	FM Trap Coil
1-405-257-11	FM Oscillator Coil
1-403-242-21	FM IFT.
1-403-243-21	"
-244-21	"
-272-21	"
-273-21	"
1-405-144-21	AM Oscillator Coil
1-403-118-21	AM IFT.
1-501-038-11	Telescopic Antenna

Part No.	Description
1-403-110-21	AM IFT. X2
1-151-100-11	Tuning Capacitor
992-401-13	AM Antenna Coil
992-423-01-2	Driver Transformer
992-427-04	Output "
992-513-04	Band Setting Slide Switch
992-221-08	Potentiometer, volume control
1-502-203-11	Speaker
992-538-11	Printed Circuit Board
1-507-011-11	Earphone Jack
1-507-901-02	Earphone Jack Nut
1-535-502-01	Battery Snap Terminal
992-535-01	Test Point Pin
X1	Transistor 2SC668C1, C2
X2	" 2SC668D1, D2
X3	" 2SC403A
X4	" CS-1226
X5	" CS-1226
X6	" 2SB186
X7	" 2SB187
X8	" 2SB187
D1	Diode 1S188
D2	" 1S188
D3	" 1S188
D4	" 1S426
Th	Thermistor CS-120

Resistor

1-201-094	R39	10 ohms
-100	R8,37	100 "
-081	R14,23,36	220 "
-021	R1,6,13,19,25,27,28,31,35	1K ohm
-088	R4,10	2K ohms
-304	R32	2.2K "
-084	R5	3.3K "
-085	R7	3.9K "
-086	R2,3,18,29,30,38	5.6K "
-041	R34	10K "
-496	R20	15K "
-087	R9,24,33	22K "
1-203-392	R12,26	47K "
1-201-688	R22	56K "
-061	R11,21	100K "

Part No.	Description	
	Electrolytic Capacitor	
1-121-349	C18,36,37,39	30uF-10V
-108	C22,29	10uF-10V
-461	C34	5uF-10V
	Styrol Capacitor	
1-105-239-11	C15	140pF ±5%
	Mylar Capacitor	
1-105-148-12	C38	0.1uF ±20%
-045-12	C32,40	0.02uF "
-041-12	C31,33	0.01uF "
	Ceramic Capacitor	
1-101-118-11	C14	0.01uF ±20%
-058	C16	0.005uF "
-455	C13	0.001uF "
-073	C5,12,17,19,26	0.02uF +80% -20%
-072	C3,10,21,25	0.01uF "
-421-11	C20	500pF ±10%
-017-11	C28,30	200pF "
-014-14	C8,24,35	100pF "
-027-14	C1,2	20pF "
-863-11	C4	18pF "
-026-14	C7	15pF "
-052-11	C11	13pF "
-048	C9	4pF ±0.5pF
-953-11	C6	3pF "
-157	C23,27	1pF "

D. Screw, Washer & Lug

	Screw
7-621-721-61	(+) Tapping 2.6ø x 5 (for Speaker)
-255-22	(+) 2 x 4 (for Telescopic Antenna)

Part No.	Description
7-621-255-42	(+) 2 x 6 (for Back Cabinet)
-259-52	(+) 2.6 x 8 (for Dial Back Plate)
-259-32	(+) 2.6 x 5 (for Tuning Capacitor)
-555-22	(+) 2 x 4 (for Volume Control)
-555-32	(+) 2 x 5 (for Dial Shaft)
-255-32	(+) 2 x 5 (for Tuning Knob)
	Washer
7-623-105-01	2ø (for Tuning Knob)
-207-11	Spring 2.6ø (for Dial Back Plate, Tuning Capacitor)
	Lug
7-623-505-01	2ø (for Telescopic Antenna)

E. Wire and Miscellaneous Items

	P.V.C. Wire
7-612-043-09	White
-043-00	Black
-043-05	Green
-043-06	Blue
-043-03	Orange
-043-02	Red
-043-04	Yellow
	P.V.C. Tube
7-623-103-09	0.8ø Clear
	Dial String
7-633-120-32	0.3ø

Part No.	Description
F. Attached Items	
992-366-86	Master Carton
992-366-89	Individual Carton Box
992-366-90	Polyethylene Bag
992-366-81	Carrying Case
992-504-01	Earphone
1-528-006	Battery
992-366-84	Instruction Manual

SONY CORPORATION

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X5	" CS-1226	
X6	" 2SB186	
X7	" 2SB187	
X8	" 2SB187	
D1	Diode 1S188	
D2	" 1S188	
D3	" 1S188	
D4	" 1S426	
Th	Thermistor CS-120	

Resistor

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-100	R8,37	100 "
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-088	R4,10	2K ohms
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-084	R5	3.3K "
-085	R7	3.9K "
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	Mylar Capacitor	
1-105-148-12	C38	0.1uF ±20% ----------
-045-12	C32,40	0.02uF " ----------
-041-12	C31,33	0.01uF " ----------
	Ceramic Capacitor	
1-101-118-11	C14	0.01uF ±20% ----------
-058	C16	0.005uF " ----------
-455	C13	0.001uF " ----------
-073	C5,12,17,19,26	0.02uF +80% -20% ----------
-072	C3,10,21,25	0.01uF " ----------
-421-11	C20	500pF ±10% ----------
-017-11	C28,30	200pF " ----------
-014-14	C8,24,35	100pF " ----------
-027-14	C1,2	20pF " ----------
-863-11	C4	18pF " ----------
-026-14	C7	15pF " ----------
-052-11	C11	13pF " ----------
-048	C9	4pF ±0.5pF ---------
-953-11	C6	3pF " ---------
-157	C23,27	1pF " ---------

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-555-22	(+) 2 x 4 (for Volume Control)
-555-32	(+) 2 x 5 (for Dial Shaft)
-255-32	(+) 2 x 5 (for Tuning Knob)
	Washer
7-623-105-01	2ø (for Tuning Knob)
-207-11	Spring 2.6ø (for Dial Back Plate, Tuning Capacitor)
	Lug
7-623-505-01	2ø (for Telescopic Antenna)

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-043-00	Black
-043-05	Green
-043-06	Blue
-043-03	Orange
-043-02	Red
-043-04	Yellow
	P.V.C. Tube
7-623-103-09	0.8ø Clear
	Dial String
7-633-120-32	0.3ø

Frequency Coverage and Tracking adjustment

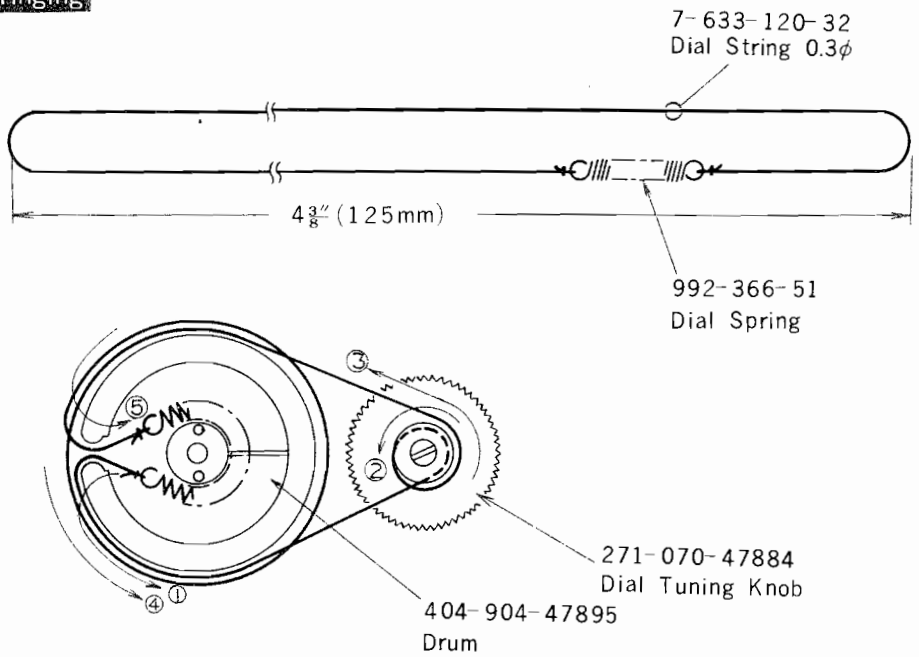
Adj. Item	S.S.G. (Standard Signal Generator) Coupling	S.S.G. Freq.	Receiver Dial Setting	Connect V.T.V.M.	Adjust	Remarks
FM Frequency Coverage	※Dummy Antenna SSG — R — REC R = 75 − Rs Where Rs : Output impedonce of SSG	85.5 Mc (400 c/s, ±22.5Kc, FM)	Fully Counter-Clockwise	To Earphone Jack with 8Ω Load Resistor in Parallel.	FM OSC Coil (L_4)	Adjust for maximum Meter reading Volume Control : Max. Power Supply : DC 9 V
		109.5 Mc (〃)	Fully Clockwise		FM OSC Trimmer(C_{T2})	
FM Tracking	— ditto —	85.5 Mc (〃)	Tune to 85.5Mc Signal	— ditto —	FM RF Coil (L_2)	— ditto —
		109.5 Mc (〃)	Tune to 109.5Mc Signal		FM RF Trimmer (CT_1)	
AM Frequency Coverage	Loop Antenna	520 Kc (1,000c/s 30% AM)	Fully Counter-Clockwise	— ditto —	AM OSC Coil (L_6)	— ditto —
		1,680 Kc (〃)	Fully Clockwise		AM OSC Trimmer (CT_4)	
AM Tracking	— ditto —	620 Kc (〃)	Tune to 620 Kc Signal	— ditto —	AM ANT Coil (L_5)	— ditto —
		1,400 Kc (〃)	Tune to 1,400Kc Signal		AM ANT Trimmer (CT_3)	

※ Dummy Antenna (FM)

Unsolder the White Lead at the Telescopic Antenna Terminal.

Connect the SSG to the White Lead and ground of the receiver through the Dummy Antenna.

Dial Cord Stringing



Tuning Drum set at fully counter-clockwise position.

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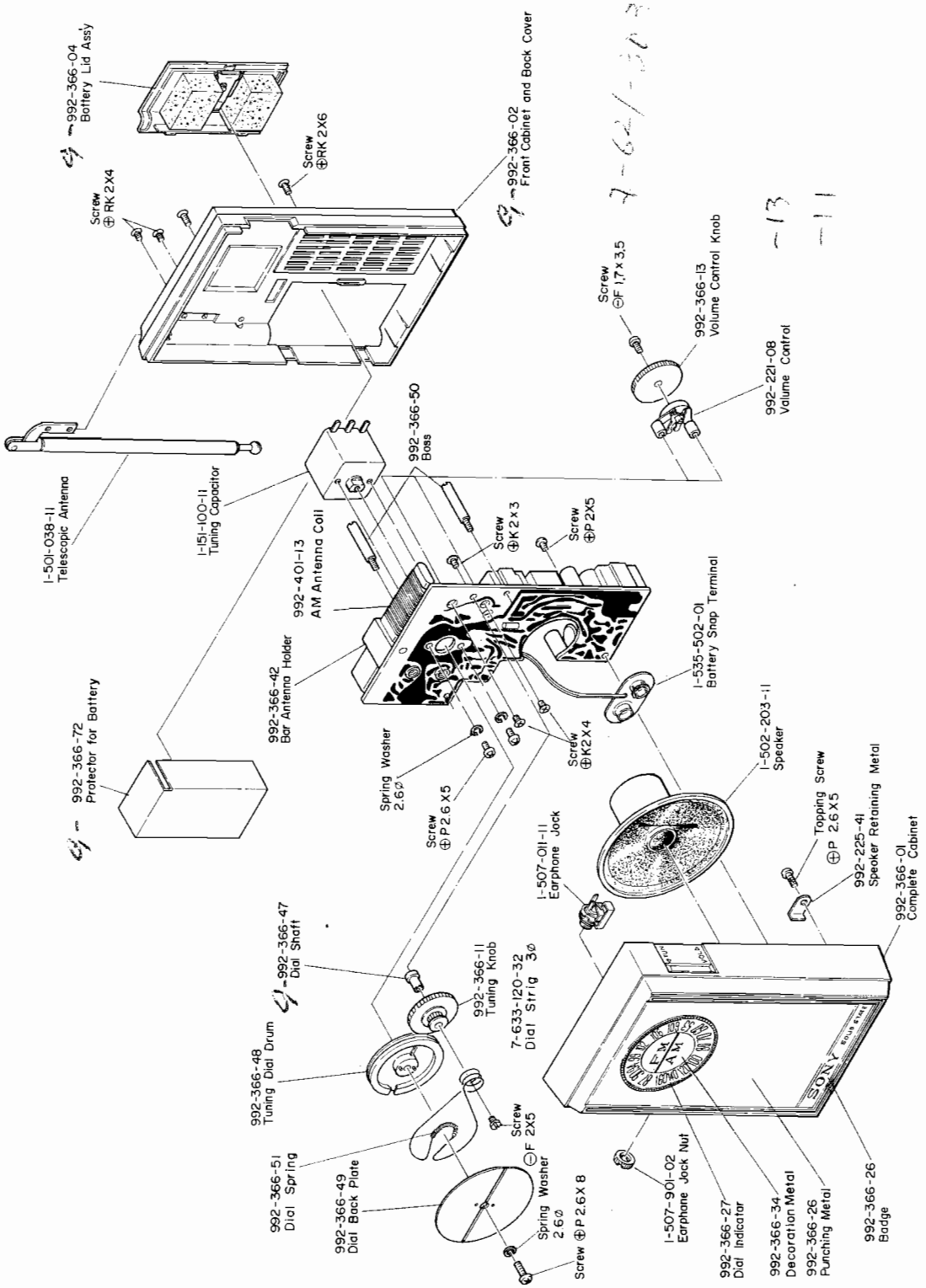
Exploded Diagram



f-M July-1968

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